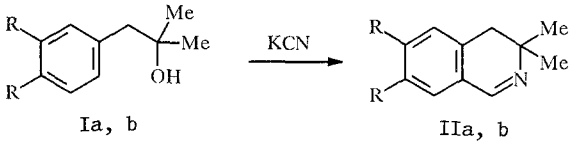
SYNTHESIS OF AZOMETHINES OF THE ISOQUINOLINE SERIES

A. G. Mikhailovskii, B. B. Aleksandrov, and M. I. Vakhrin

3,4-Dihydroisoquinolines are widely used as synthones [1, 2].

Continuing our research on the Ritter reaction for the synthesis of isoquinolines [3, 4], we have observed that carbinols I undergo cyclization with KCN to give cyclic azomethines II.



Ia, b IIa, b

I,II a R = H; b R = OMe

Compounds II were obtained by the method in [4]. The yields were 47% (IIa) and 76% (IIb).

3,3-Dimethyl-3,4-dihydroisoquinoline (IIa). The hydriodide of this compound had mp 158-160°C (from ethyl acetate). PMR spectrum of the base (in CCl_4): 1.10 (6H, s, $2CH_3$); 2.57 (2H, s, CH_2); 6.69-7.30 (4H, m, aromatic protons); 7.96 ppm (s, CH=N). IR spectrum: 1628 cm^{-1} (C=N).

3,3-Dimethyl-6,7-dimethoxy-3,4-dihydroisoquinoline (IIb). This compound had mp 63-65°C (from hexane). PMR spectrum (in CCl_4): 1.10 (6H, s, $2CH_3$); 2.47 (2H, s, CH_2); 3.67 (6H, s, $2CH_3O$); 6.40 (1H, s, 5-H); 6.56 (1H, s, 8-H); 7.80 ppm (s, CH=N). IR spectrum: 1632 cm^{-1} (C=N).

The results of elementary analysis were in agreement with the calculated values.

REFERENCES

1. F. Bohlmann, D. Habeck, E. Poetsch, and D. Schumann, *Chem. Ber.*, **100**, 2742 (1967).
2. E. Ziegler, W. Leitner, and H. Sterk, *Z. Naturf.*, **33**, 640 (1978).
3. V. S. Shklyaev, B. B. Aleksandrov, M. I. Vakhrin, and G. I. Legotkina, *Khim. Geterotsikl. Soedin.*, No. 11, 1560 (1983).
4. V. S. Shklyaev, B. B. Aleksandrov, and A. G. Vakhrin, *Khim. Geterotsikl. Soedin.*, No. 9, 1239 (1989).

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